To: Ex. 6 - Pruitt Cal Acct; Jackson, Ryan[jackson.ryan@epa.gov]; Flynn, Mike[Flynn.Mike@epa.gov]; Reeder, John[Reeder.John@epa.gov]; Kenny, Shannon[Kenny.Shannon@epa.gov]; Heard, Anne[Heard.Anne@epa.gov]; Richardson, RobinH[Richardson.RobinH@epa.gov]; Hull, George[Hull.George@epa.gov]; Cleland-Hamnett, Wendy[Cleland-Hamnett.Wendy@epa.gov]; Breen, Barry[Breen.Barry@epa.gov]; Shapiro, Mike[Shapiro.Mike@epa.gov]; Kreutzer, David[kreutzer.david@epa.gov]; Hale, Michelle[hale.michelle@epa.gov]
Cc: Hubbard, Carolyn[Hubbard.Carolyn@epa.gov]; Blackburn, Elizabeth[Blackburn.Elizabeth@epa.gov]; Gwinn, Maureen[gwinn.maureen@epa.gov]; Rodan, Bruce[rodan.bruce@epa.gov]; Radzikowski, Mary Ellen[Radzikowski.Maryellen@epa.gov]; Robbins, Chris[Robbins.Chris@epa.gov]; Burden, Susan[Burden.Susan@epa.gov]
From: Kavlock, Robert
Sent: Thur 2/23/2017 7:53:14 PM
Subject: ORD Weekly Update, February 23 2017

Administrator,

It was a pleasure briefing you today on the ORD research enterprise and getting to know you better. Thanks for taking the time so early in your tenure. We look forward to deeper dives in the future on the topics you flagged for more information.

As you will see below, we have had an active week despite it being a short one, and next week shows no slack..

Bob Kavlock

ICCVAM Meeting

This week I attended a meeting of the Interagency Coordinating Committee on the Validation of Alternative Methods (ICCVAM), a permanent committee of the National Institute of Environmental Health Sciences under the National Toxicology Program Interagency Center for the Evaluation of Alternative Toxicological Methods. ICCVAM is composed of representatives from 15 U.S. Federal regulatory and research agencies that require, use, generate, or disseminate toxicological and safety testing information. The purpose of the meeting was to start developing a plan to advance the evaluation of

chemical and drug safety in the United States that will improve relevance, increase confidence, and reduce costs. The EPA investment in computational toxicology over the past decade and our partnership with NIH and FDA in advancing the science has set the stage for regulatory acceptance of these advanced methods for evaluating chemical safety.

Participation in Flint Task Force Meeting, February 22

ORD participated in the Flint Task Force meeting yesterday, held via video conference. The purpose of the meeting was to discuss the Task Force review of the corrosion control studies.

Region 4 ORD Meeting February 23

Today ORD spent the day meeting with our colleagues from Region 4. Region 4 has just taken on the lead region role for ORD for the next 2 years. We shared presentations about ORD's research, our organization, and our research planning cycle. We also discussed our regional and state projects, and identified ways that we can collaborate on specific activities during our partnership.

State Engagement

On February 24, ORD is hosting the first of a series of teleconferences with state representatives to better understand the states' pressing science needs for the priority areas identified in the 2016 survey conducted by the Environmental Research Institute of the States. The initial call will focus on water-related science needs. The Environmental Council of the States has invited representatives from FL, KY, MA, MN, OH, UT and VA to participate.

Perfluoroalkylated Substances Discussion with European Food Safety Authority

On February 27, ORD will lead a cross-EPA discussion with representatives from the European Food Safety Authority on the *Application of New Alternative Methods to Inform the Human Health Toxicity of Perfluoroalkylated Substances.* The purpose of the meeting is to explore areas for future collaborations. The project is part of an ongoing EPA effort and has been identified as a case study for the EPA-initiated international workgroup on *Accelerating the Pace of Chemical Risk Assessment.*

Per- and Polyfluoroalkyl Substances Federal Agency Meeting

ORD will participate in a cross-federal agency, non-public, half-day meeting on March 2 , hosted by ATSDR, to discuss issues related to per- and polyfluoroalkyl substances (PFAS). The purpose is for each agency to provide a high-level overview of activities and to explore areas for further collaboration. Representatives from EPA, CDC, FDA, NIOSH, USDA, USGS, and CPSC are scheduled to attend this virtual-only meeting.

World Meteorological Association Workshop

February 28-March 2 in Geneva, Switzerland ORD will moderate a discussion on the use of global ground-based and satellite measurement datasets for the development of total atmospheric deposition budgets. The discussion will provide information on measurement and modeling of dry deposition processes. The workshop, which is focused on Measurement-Model Fusion for Global Total Atmospheric Deposition, is designed to help countries agree on a standard methodology specific to field data fused with model and mapping estimates. Attendees include government scientists from World Meteorological Organization member nations.

ORD to Present on Wildfires and Health to Forest Service

On March 1, ORD will address the Executive Science Team of the US Forest Service. The presentation will summarize ORD's research efforts related to wildfire and health and explore opportunities for future inter-agency collaboration. The invitation is the result of investments in ORD research on this topic accompanied with stronger engagement and communication with the US Forest Service over the last two years. This effort has resulted in an increased awareness of the adverse health effects of smoke exposure, both to communities and firefighters, and subsequent discussions on how to mitigate these effects.

Nutrients Sensors Challenge Announcement

EPA will announce the winners of the Nutrient Sensor Challenge at the ASLO meeting in Hawaii on March 2, 2017. The Nutrient Sensor Challenge accelerated the development of innovative low-cost sensors for monitoring nutrients in aquatic environments. The Challenge was led by EPA with the Alliance for Coastal Technologies and the Challenging Nutrients Coalition (EPA, USGS, NOAA, NIST, USDA). The Nutrient Sensor Challenge is recognized as a highly successful market

stimulation challenge, providing competitors with valuable opportunities including free sensor evaluation and extensive recognition and publicity. First place winner for Nitrate and Phosphate is Systea, an Italian company with installations in the US and Europe. An honorable mention award for Innovation and Potential will be awarded to National Oceanography Center in the UK. Both teams developed innovative sensors that demonstrated ability to provide affordable and accurate sensors to users. At the ASLO meeting, EPA will also announce the next phase of the Nutrient Sensor Competition – the Nutrient Sensor in Action Pilot Prize Competition. The goal of this Competition is to accelerate actual deployment and use of new nutrient sensors by states, local governments and other organizations.

ORD Briefs Region 6 Leadership about Project Involving Tribal Volunteers to Understand Exposure to Waterborne Pathogens

On March 2, ORD will brief the Region 6 Acting RA and DRA about a Regional Applied Research Project Involving Tribal Volunteers to Understand Exposure to Waterborne Pathogens. The research is intended to support implementation of more specific and efficient water treatment and disinfection practices in tribal drinking water systems. This study will partner with local Indian Health Service clinics and tribal environmental offices to ask volunteers to provide one-time saliva samples*. Data and analysis will provide much needed public health information on drinking water pathogens present in tribal populations. In addition, this project can assist tribal officials in understanding potential sources of contamination and what actions can be performed to keep drinking water safe.*

Million Hearts Initiative Uses EPA Data

February is American Heart Month. One in three American adults has heart or vascular disease. EPA is raising awareness of heart disease and its link to air pollution and other environmental factors because air pollution puts those with cardiovascular disease at higher risk of heart attack or stroke.The Centers for Disease Control and Prevention and the Centers for Medicare & Medicare Service are cooperating to increase awareness among high risk groups on controllable factors that affect the heart and blood vessels. The role of air particulates is specifically recognized as a controllable factor affecting public health and an area to which ORD has made major contributions. The new Million Hearts initiative, to which EPA is a contributor, will begin this month.

Methyl Bromide Research Support. In February 2016, Region 10 requested ORD perform a combustion study of crops grown in fields previously treated with methyl bromide to control a nematode infestation. The purpose of the study is to determine

whether this is a viable method for destruction of the contaminated crops. In the fall of 2016, ORD initiated laboratory burn studies to sample and analyze emissions from methyl bromide treated alfalfa and untreated alfalfa. Currently, three sample sets, each consisting of 3-6 burns, from both treated and untreated alfalfa are currently undergoing analysis. Emissions under consideration include particulate matter, volatile organic compounds, polycyclic aromatic hydrocarbons, hydrogen bromide, bromine, and chlorinated and brominated dioxins and furans. The test burns and all analyses, except one, were just completed. The timeframe to complete the last analysis is uncertain while ORD awaits equipment repair.

Field Studies to Support Cleanup at Region 6 Delatte Metals Superfund Site, Ponchatoula, LA

February 27-March 3, ORD will conduct field studies investigating the impact on groundwater flow of an organic permeable reactive barrier installed to remediate groundwater contamination at the Delatte Metals Superfund Site. ORD, working with Region 6 and the State of Louisiana, is conducting field research to provide performance verification and to further the understanding of the long-term behavior of this technology. Former facilities at the site processed spent lead-acid batteries, smelting the lead plates into ingots. These operations resulted in contamination to soil, sediment, surface water, and groundwater.

Publications

Health Effects Institute Accountability Study

The Health Effects Institute recently issued a special report entitled *The Effects of Policy-Driven Air Quality Improvements on Children's Respiratory Health.* Lead author Dr. Frank Gilliland, USC, and colleagues investigated an important public health question, "Do regulations enacted to decrease emissions of major outdoor air pollutants result in long-term decreases in levels of the targeted pollutants and in improvements in the health of the exposed population?" Nearly 20 major policy actions were implemented in Southern California from 1993 to 2012 to reduce air pollutant emissions from transportation and other sources. The study's major health findings were that as the average concentrations of pollutants — particularly NO_2 and $PM_{2.5}$ — decreased, the rate of growth of the children's lung function improved. In addition, decreases in ambient concentrations of NO_2, $PM_{2.5}$, PM_{10}, and O_3 were associated with decreased prevalence of respiratory symptoms, particularly in children with asthma. An overview of this study and an opportunity to ask the investigators questions will be provided for EPA staff through a webinar on March 2.